



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,506	10/15/2003	Michael A. Milligan	0275R-000799	3538
27572	7590	10/24/2006		EXAMINER
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			TILL, TERENCE R	
			ART UNIT	PAPER NUMBER
			1744	

DATE MAILED: 10/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/686,506	MILLIGAN ET AL.	
	Examiner Terrence R. Till	Art Unit 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 17-21 and 32-51 is/are pending in the application.
- 4a) Of the above claim(s) 20,21,35 and 36 is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 17-19, 32-34 and 37-51 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date ____.	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 17-19, 32-34, 37-44 and 48-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent to Ito et al. (2002-17621) in view of Bass et al. (US 5,787,546).

5. With respect to claim 17, Ito et al. inherently discloses (figures 1-3) the method of filtering a dirt and debris laden air flow, the method comprising: providing a hand-held vacuum with a housing 10, a motor and impeller 11, a container 14 and a filter 22, the housing including a front wall and a handle 13 that is adapted to permit a user to employ the hand-held vacuum for vacuuming with a single hand, the impeller being disposed within the housing, the container having an integral inlet port 23 for receiving the dirt and debris laden air flow therethrough, the container defining a dirt collection chamber within container 14 in which the integral inlet port longitudinally extends, the container being attached to the housing 26,27 and forming at least a portion of an exterior surface (see figure 2) of the hand-held vacuum, the container being configured to retain dirt and debris removed from the dirt and debris laden air flow and at least a portion of the filter being disposed between the front wall and the inlet port; providing electrical energy to the motor to cause the impeller to rotate and generate the dirt and debris laden air flow; and swirling the dirt (see arrows in figure 2 how container is called "centrifugal dust removal section") and debris laden air flow around a perimeter of the filter within an interior of the container. Ito et al. '17621 also discloses the method steps of removing the container from the housing to empty the container and wherein the container and the inlet port are fixedly coupled to one another. With respect to claim 32, Ito et al. '17621 disclose the very same structure outlined in the method and the inlet port 23 extending rearwardly toward the front wall when the dirt cup is coupled to the housing; and means for swirling the air flow about an interior of the dirt cup in a helical manner between the inlet port and the filter. The swirling means includes an elbow flow deflector 20 associated attached to the rear end of the inlet port of the dirt cup. With respect to claim 40, Ito et al. '17621 is considered to disclose (see figure 2) the flow deflector

having an outlet and wherein the outlet faces a side of the dirt cup, and rearwardly toward the housing since, as can be seen in figure 1, The deflector is angled downward and slightly to the rear towards the filter. Ito et al. is also considered to disclose the dirt cup has a substantially smooth interior surface and the flow deflector alters the course of the air flow exiting the inlet port directing the dirt and debris laden air flow in the dirt cup through the container and thereafter in a direction about the filter before the dirt and debris laden air flow enters the housing so that the filter is not directly in-line with air exiting the inlet port. Ito et al. does not disclose the vacuum cleaner is driven by battery power. However, hand-held vacuum cleaners are notoriously known for being powered by either a wall outlet and electrical cord or battery powered. The patent to Bass et al. discloses a hand-held vacuum cleaner that can be powered by either a wall outlet and electrical cord, or a battery (see column 4, lines 20-30). Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to provide the vacuum cleaner of Ito et al. with a battery to power the vacuum cleaner in view of the teaching of Bass et al.

6. Claims 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent to Ito et al. (2002-17621), as modified by Bass et al., as applied to claim 44 above, and further in view of patent to Ito et al. (2002-136456).

7. Japanese patent to Ito et al. '17621, as modified by Bass et al., does not disclose the elbow includes an attachment portion and wherein one of the attachment portion and the inlet port is received into the other one of the attachment portion and the inlet port. The Japanese patent to Ito et al. '136456 discloses a very similar device that also includes (see figures 2-4) an attachment portion and wherein one of the attachment portion and the inlet port is received into

Art Unit: 1744

the other one of the attachment portion and the inlet port. Also, Ito et al. '136456 disclose the attachment portion and the inlet port are frictionally engaged to one another and the elbow is removably coupled to the inlet port. It would have been obvious to a person skilled in the art at the time the invention was made to provide an inlet portion and an elbow that has an frictionally engaged attachment portion to Ito et al. '17621, as modified by Bass et al., in view of the teaching of Ito et al. '136456 in order to disassemble the vacuum cleaner device for cleaning the elements.

Conclusion

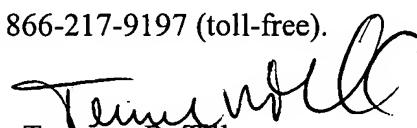
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Thomas et al., Touya et al., Genge et al. and Swartz all disclose vacuum cleaners that state that any of them can use either battery power or have a cord connected to a wall outlet.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrence R. Till whose telephone number is (571) 272-1280. The examiner can normally be reached on Mon. through Thurs. and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys P. Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Terrence R. Till
Primary Examiner
Art Unit 1744

trt